Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Idaho** Print Date: **3/10/2000**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory** HQ ID: **3002**

Project **ID-OIM-115 / Site Operations Center (SOC)**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

This project provides for the design, procurement, and construction activities to provide for a new multipurpose, multi-user facility, Site Operations Center (SOC), at the Central Facilities Area (CFA). This facility is necessary for the Idaho National Engineering and Environmental Laboratory (INEEL) sitewide operations. The new facility will be approximately 30,000 square feet and will house a cafeteria, conference rooms with distance learning center capabilities, a bus depot, a satellite data center (computer servers), a copy center, and office space.

The new facility will be a single-story, pre-engineered, metal building system. A mezzanine level will be provided in the facility to house some of the building HVAC equipment. Site work will primarily consist of asphalt paving for employee parking and access to the facility. Existing CFA water and sewer utilities will be extended or modified as required to service the new facility. Electric power for the new facility will be provided by tie-in to the existing CFA power system. The facility will be constructed to comply with the Americans with Disabilities Act (ADA) and other appropriate codes and standards. As part of this project standard office furnishings, conference room furnishings, and food service equipment will be procured and installed.

This project will provide a facility that will eliminate/reduce worker health and safety issues, affect economies of operation by replacing aged and deteriorated facilities, support and maintain the physical infrastructure of the INEEL, and provide additional space to support INEEL programs and operations. Maintenance and repair costs of these aged and deteriorated buildings will continue to escalate as the facilities deteriorate with age. Potential worker exposure and expensive repair costs will be eliminated by the construction of SOC. Asbestos exists in pipe insulation and flooring and lead paint is found throughout the existing facilities. Repeated asbestos repair and removal work exposes workers to a carcinogen health hazard. The average cost increase for maintenance jobs containing asbestos work is 20 to 30 percent higher. Roof and HVAC repairs expose workers to fall hazards. Water, sewer, and steam system repairs expose workers to confined spaces.

A normalized square footage cost was developed for similarly constructed facilities that were constructed recently at the INEEL; this analysis indicates that the cost per square foot for this facility is in-line with recent construction costs at the INEEL. The economic analysis shows a payback within eight years of operations while meeting the Environmental Management (EM) Program goals of reducing mortgage and support costs and protecting worker health and safety.

The construction of this new facility is in line with the goals of Integrated Safety Management (ISM) and the Voluntary Protection Plan (VPP) to eliminate/reduce worker exposure to health and safety issues. SOC supports the EM mission by providing an adequate infrastructure facility to support all compliance agreements associated with spent nuclear fuels, INEEL waste streams, environmental remediation, the Federal Facilities Agreement Consent Order (FFACO), facility deactivation, and the Settlement Agreement (October 17, 1995, court order). As identified in the End State Planning document, the current site mission requires operation of a replacement facility to the year 2050.

Following is a listing of the current conditions, by function, which will be remedied by construction of SOC:

CFA CAFETERIA

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The facility which houses the cafeteria and only large conference room at CFA, originally constructed in 1951, has structural deficiencies. The building requires extensive structural upgrades to meet the minimum seismic life safety requirements as identified in Executive Order 12941, which adopts ICSSC RP 4 "Standards of Seismic Safety for Existing Federally Owned or Leased Buildings " as documented in a 1997 official report. It failed the screening process that determines general seismic risk to life safety with findings such as extensive shear cracking, deteriorated mortar joints, unreinforced masonry walls, incomplete lateral load paths and inadequately braced permanent fixtures. Several other major deficiencies exist with the sewer system, HVAC system, boiler system, roof, and food service equipment. These deficiencies affect worker safety and health, increase maintenance costs and will require extensive, expensive upgrades/repairs to correct. The kitchen does not meet the State of Idaho Administrative Procedures Act (IDAPA) regulations (IDAPA 16.02) for: Handwashing Facilities, there are no handwashing sinks in the food preparation area (preparation sinks have been designated for handwashing which negatively impacts the availability of food preparation sinks); Floors and Floor Coverings, there are broken tiles in the kitchen area; Premises Contamination Control, roof leaks in the facility have the ability to contaminate food and food is not always stored in accordance with the regulation due to lack of available storage space; and Food Preparation Sinks, inadequate number of food preparation sinks due to some of them being designated for handwashing sinks.

Bi-weekly preventive maintenance on drain lines must be performed to ensure they remain functional and the walk-in freezer has to be manually defrosted each week, increases operating costs. Water from defective drain lines and /or steam leaks has run down the utility tunnels under the facility and onto electrical power systems in the basement. Repairs on the boiler system are extremely expensive because many replacement parts are no longer available due to the age of the system. Many of the refrigerant systems (e.g. walk-in freezers, coolers, reach-in coolers) contain R-12. R-12 was taken out of production after it was determined to be hazardous to the environment. Replacement refrigerant is very expensive. Replacing R-12 with other "drop in" refrigerants is not an option at this time. All new refrigerants have different pressure-temperature relationships requiring R-12 systems be replaced.

The existing restrooms do not meet the Uniform Building Code (UBC), Uniform Plumbing Code (UPC), nor the ADA requirements. The number of water closets do not meet the minimum UBC or UPC requirements for a facility with this size seating capacity. The restrooms do not contain ADA fixtures and are not accessible to employees with disabilities; i.e., doorways are too narrow, doors are difficult to open.

There are various Uniform Plumbing Code (UPC) violations throughout the facility dealing with venting issues from the restrooms, food preparation areas, and kitchen areas. The combustion air to the boiler room is not adequate per the Uniform Mechanical Code (UMC).

The CFA cafeteria prepares all the baked goods and the second main entrée for all of the site cafeterias. The CFA cafeteria is the main food receiving area on the INEEL as it is the only site cafeteria capable of holding the food that is needed for all of the INEEL cafeterias. Dry goods, frozen goods, and all food goods are delivered from the CFA cafeteria to the other INEEL cafeterias operations. Without the CFA cafeteria the other INEEL cafeterias would only be able to operate on a limited menu basis. The closest food available offsite is located in a town approximately 30 miles away; lunchtime at site facilities is a half-hour.

CFA BUS DEPOT

Project Description Narratives

The existing bus depot, originally constructed in 1952, does not provide adequate space for personnel to wait indoors during severe weather conditions and has inadequate heating. The restrooms do not meet the ADA requirements and are undersized to meet the volume of personnel traffic that this facility sees as the main bus depot for the INEEL.

COMPUTER SERVERS

Computer systems servers, shared by multiple users, supporting site operations and programs are scattered throughout the INEEL. Site operations are impacted as these scattered locations do not have adequate personnel access restrictions, uninteruptable power supplies, and ventilation to support the servers causing downtime of the computer systems. Maintenance costs would be reduced by relocating the servers to one location to support the existing set of system applications.

COPY CENTER

The current copy center is located in a facility which was not designed for such occupancy and lacks adequate cooling. There is inadequate space for storage of supplies, access around the equipment, personnel office space, and planned new copy equipment. Building egress is impacted as existing material delivery is made through a main facility entrance.

OFFICE FACILITIES

Existing office facilities at CFA are near capacity. Current long range plans project an increase in personnel at the CFA area by the year 2000. In addition, planned or proposed relocations of personnel from outlying areas (Test Area North, Power Burst Facility, and the Radioactive Waste Management Complex) indicate the need for additional office spaces at CFA. These relocations are due to the shutdown of facilities, turnover of facilities from operations to programs, and the Advance Mixed Waste Treatment Project Tri-Party Memorandum of Agreement between BNFL Inc., Department of Energy and LMITCO.

All DOE facilities are designed and constructed in accordance with applicable Public Laws, Executive Orders, OMB Circulars, Federal Property Management Regulations, and DOE Orders. The total estimated cost of the project includes the cost of measures necessary to assure compliance with Executive Order 12088, "Federal Compliance with Pollution Control Standards"; section 19 of the Occupational Safety and Health Act of 1970, the provisions of Executive Order 12196, and the related Safety and Health provisions for Federal Employees (CFR Title 29, Chapter XVII, Part 1960); and the Architectural Barriers Act, Public Law 90-480, and implementing instruction in 41 CFR 101-19.6. The project will be located in an area not subject to flooding determined in accordance with Executive Order 11988.

The Department of Energy Idaho Operations Office (DOE-ID) shall be responsible for implementation of the project, including selection of principal contractors and approval of specified procurement actions. DOE-ID project management shall be performed by Construction Management, Office of Program Execution and Office of Infrastructure Management. DOE-ID administrative and other project support functions shall be furnished to the project by the DOE-ID functional organization.

Lockheed Martin Idaho Technologies Company (LMITCO) shall be the operating contractor responsible for the development of the project`s technical

Project Description Narratives

requirements, completion of the Architectural and Engineering Design, review and management of the engineering and construction activities, procurement of selected equipment, construction subcontracting, checkout of systems, and maintenance (not funded by this project) of the completed project. LMITCO project management and construction management shall be performed by the Site Services Organization as required to complete the project in a timely, safe, and cost effective manner. Administrative and other support functions shall be furnished to the project on a matrix basis by the LMITCO functional organizations.

Project Status in FY 2006:

Construction is scheduled to be completed the 2nd quarter FY 2004, all close-out activities are scheduled to be completed in FY 2004.

Post-2006 Project Scope:

None. (Maintenance will be performed under the direction of Facilities, Utilities, and Maintenance operations.)

Project End State

The project will provide a new multipurpose, multi-user facility at the Central Facilities Area (CFA) that will house a cafeteria, conference rooms, bus depot, satellite data center, a copy center, and office space.

Cost Baseline Comments:

The costs are based upon activity based costs and standard industry accepted estimating basis. Project Cost estimates are developed at each phase of the project per the INEEL Cost Estimating Guide. These phases are identified as (1) Conceptual Design, (2) Title I Design, (3) Title II Design; and (4) Approved for Construction (AFC). These estimates may change through time as a part of the normal design evolution, further definition of requirements needed to support the existing mission and project uncertainties based on items such as the stage of design complexity (e.g., conceptual versus AFC), award prices, approved baseline plans, and subsequent changes. At each project phase, a contingency analysis is performed on each estimate to determine the appropriate level of contingency required to perform the project. Cost estimates are prepared to encompass all scope required to ensure this project supports compliance with the FFACO and the Idaho Settlement Agreement.

The Site Operations Center Project Baseline Summary (PBS) does not reflect the changes to the fixed asset acquisition appropriation methodology where outyear requests are to be approximated in FY 1998 or the new LICP project start year. The PBS does reflect the funding in the required year as planned.

Safety & Health Hazards:

The principal hazards associated with this project are standard industrial hazards and construction.

Safety & Health Work Performance:

Safety is mitigated through incorporation of safety codes and standards in the project design, i.e. ANSI, NFPA, NEC, etc.. Representatives from S&H will be involved in the review of the design package to assure adequate controls are included in the construction package. Construction subcontractors are required to submit a project safety plan for review and approval prior to start of construction. Construction contracts require daily Plan of Day meetings and safety oversight. In addition weekly industrial safety and industrial hygiene oversight and assessments are required. A Facility

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Acceptance Review Committee will be established which will include representation from the occupational and industrial safety, tenant, maintenance, project, and program organizations. The committee will define preventative maintenance procedures, operations procedures, and training requirements; verify all safety concerns have been corrected; verify systems have been tested and are ready to be placed in operations; and conduct a facility inspection to verify readiness prior to the facility being occupied and operated.

PBS Comments:

Baseline Validation Narrative:

This project was validated by DOE-ID in May 1998 by the annual construction project validation process. This validation process evaluates the project for readiness to proceed into the Department`s budget process, and examines the planning, development, and baseline of the project to ensure that the funds requested are commensurate with the project`s anticipated scope and schedule.

General PBS Information

Project Validated? Yes **Date Validated:** 5/12/1998

Has Headquarters reviewed and approved project? No

Date Project was Added:

Baseline Submission Date:

FEDPLAN Project? Yes

Drivers:

CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
Y	Y	N	N	N	Y	Y	Y

Project Identification Information

DOE Project Manager: Wayne B. Shigley

DOE Project Manager Phone Number: 208-526-1986

DOE Project Manager Fax Number: 208-526-9150

DOE Project Manager e-mail address: shiglewb@inel.gov

Is this a High Visibility Project (Y/N):

Planning Section

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Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	11,900	0	11,900			280	188	180	1,306	4,462	5,532	140	0	0	0
PBS Baseline (constant 1999 dollars)	11,282	0	11,282			280	188	180	1,272	4,255	5,167	128	0	0	0
PBS EM Baseline (current year dollars)	11,900	0	11,900			280	188	180	1,306	4,462	5,532	140	0	0	0
PBS EM Baseline (constant 1999 dollars)	11,282	0	11,282			280	188	180	1,272	4,255	5,167	128	0	0	0

	2007	2008	2009	2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
PBS Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	0.00%	0.00%	2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

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2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project:

Current Projected End Date of Project: 7/2/2004

Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):		**Actual 1997 Cost:**	
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	-188	**Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):**	-5
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	-193		

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):	11,195	New LICP created from OIM 101.
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	11,002	
Additional Amount to Reconcile (+):	0	
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	**11,002**	

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Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Project Start	ID-OIM-115-01		3/31/2000								
Project Mission Complete	ID-OIM-115-02		7/2/2004								

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Project Start	ID-OIM-115-01			Y							
Project Mission Complete	ID-OIM-115-02				Y	Y					